UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

06/30/2004

EXAMINER
BREWSTER, WILLIAM M

Anthony P. Onello, Jr. MILLS & ONELLO LLP Suite 605 Eleven Beacon Street Boston, MA 02108

ART UNIT PAPER NUMBER

2823

DATE MAILED: 06/30/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705.480	11/10/2003	Jong-Hyun Lee	SAM-0402DIV	5138

TITLE OF INVENTION: METHOD OF FABRICATING SEMICONDUCTOR DEVICE INCLUDING FORMING CONTACT HOLE WITH ANISOTROPIC A ISOTROPIC ETCHING AND FORMING DISCONTINUOOS BARRIER LAYER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	09/30/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATEN <u>PROSECUTION ON THE MERITS IS CLOSED</u>. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHT THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPO PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM TH MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THE STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOV REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (O AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WIL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is n claiming SMALL ENTITY status, check the box below and enclo the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status.
 See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) we your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

			or <u>Fa</u>				
INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed wh appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" maintenance fee notifications.							
CURRENT CORRESPONDENCE	ADDRESS (Note: Legibly mark-up	with any corrections or	use Block 1)	Note: A certificate o	Note: A certificate of mailing can only be used for domestic mailings of		
				papèrs. Each addition	Fee(s) Transmittal. This certificate cannot be used for any other accompany papers. Each additional paper, such as an assignment or formal drawing, m		
759				have its own certifica	te of mailing or transmission.		
Anthony P. Onello, Jr. MILLS & ONELLO LLP			Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the Un States Postal Service with sufficient postage for first class mail in an envel addressed to the Mail Stop ISSUE FEE address above, or being facsim				
Suite 605 Eleven Beacon Street			transmitted to the USPTO, on the date indicated below. (Depositor's na				
Boston, MA 02108						(Signat	
						(D	
					T.—		
APPLICATION NO.	FILING DATE		FIRST NAMED II		ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/705,480	11/10/2003		Jong-Hyun	Lee	SAM-0402DIV	5138	
TITLE OF INVENTION: N ISOTROPIC ETCHING AND				ICE INCLUDING FORM	IING CONTACT HOLE WI	TH ANISOTROPIC A	
APPLN. TYPE	SMALL ENTITY	ISSUE FI	EE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE	
nonprovisional	NO	\$1330)	\$300	\$1630	09/30/2004	
ЕХАМП	NER	ART UN	IT	CLASS-SUBCLASS			
BREWSTER, WILLIAM M		2823		438-628000	_		
CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. The Address indication (or "Fee Address" Indication form against the Address indication for against the Address indication form against the Address indication form against the Address in Address indication for against the Address indication for against the Address indication for against the Address indication for			2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.				
3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)							
Please check the appropriate a	<u></u>	<u> </u>			corporation or other private gr	roup entity governm	
4a. The following fee(s) are e	nclosed:	4b	. Payment of Fe	· /	1 1		
☐ Issue Fee ☐ Publication Fee				he amount of the fee(s) is en	•		
	☐ Publication Fee ☐ Payment by credit card. Form PTO-2038 is attached. ☐ Advance Order - # of Copies (enclose an extra copy of this form). ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment Deposit Account Number (enclose an extra copy of this form).						
Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.							
(Authorized Signature)		(Date)					
NOTE; The Issue Fee and Publication Fee (if required) will not be according than the applicant; a registered attorney or agent; or the assignee interest as shown by the records of the United States Patent and Trademark		ee or other part k Office.	ty in				
This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.							

()



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/705,480	11/10/2003	Jong-Hyun Lee	SAM-0402DIV	5138	
7590 06/30/2004		EXAMINER			
Anthony P. Onello, Jr.			BREWSTER, WILLIAM M		
MILLS & ONELL Suite 605	OLLP		ART UNIT	PAPER NUMBER	
Eleven Beacon Street		2823			
Boston, MA 02108			DATE MAILED: 06/30/2004		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after t mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a ha months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date th determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retriev (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.